

Applicant(s): Teunis Hermanus Uittenbogaard
Serial No.: 10/505,269
For: HIGH FREQUENCY SIGNAL SWITCHING
Filed: August 20, 2004
Examiner: Nguyen, Hiep
Group Art Unit: 2816

Attorney Docket No.: NL020145

IN THE CLAIMS:

Please consider the following claims:

1. (currently amended) An electronic signal processing apparatus with a signal switch, the ~~circuit~~ switch comprising:
 - _____ a switch input, a switch output and an internal node;
 - _____ a first and a second depletion transistor ~~of normally-on type~~, having main current channels coupled between the internal node and the ~~switching-switch~~ input and output, respectively;
 - _____ a signal ~~coupling-processing arrangement~~ between the internal node and a reference terminal of the switch input and switch output, the signal ~~coupling-processing arrangement~~ comprising:
 - _____ a diode; and
 - _____ a switch control circuit with a control output, ~~DC-coupled-coupled~~ to the main current channel-channels of the first and the second depletion transistor via the internal node so as to control conduction of the main current channels, the diode being ~~DC-coupled-coupled~~ to the internal node so that a DC potential at a terminal of the diode, which controls on/off switching of the diode, is determined by a potential of the internal node in opposition to on/off switching of the main current channels.
2. (currently amended) An electronic signal processing apparatus as claimed in claim 1, wherein the diode ~~being is~~ is part of a ~~DC-current~~ path from the control output to the internal node, so that the diode is forward-biased when a control voltage that makes the main current channels non-conductive is applied from the control output to the main current channels via the diode.
3. (currently amended) An electronic signal switch, the switch comprising
 - _____ a switch input, a switch output and an internal node;

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_____ a first and a second depletion transistor of ~~normally-on-type~~, having main current channels coupled between the internal node and the switching-switch input and switch output, respectively;

_____ a signal coupling connection between the internal node and a reference terminal of the switch input and output, the signal coupling connection comprising:

_____ a diode; and

_____ a control input, DC-coupled-coupled to the main current channel of the first and the second depletion transistor via the internal node to control conduction of the main current channels, the diode being DC-coupled-coupled to the internal node so that a DC potential at a terminal of the diode, which controls on/off switching of the diode, is determined by a potential of the internal node in opposition to on/off switching of the main current channels.

4. (currently amended) An electronic signal switch as claimed in claim 13, wherein the diode is part of a DC-current path from the control input to the internal node, so that the diode is forward-biased when a control voltage that makes the main current channels non-conductive is applied from the control output to the main current channels via the diode.

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